

**ABSTRACT OF THE DISCLOSURE**

A one piece anastomosis device is disclosed which is formed of a superelastic or pseudoelastic material which self deforms or self deploys from an insertion configuration to a tissue holding configuration. The device in a deployed state preferably includes an inner tissue penetrating flange which penetrate and  
5 retains an everted graft vessel and an outer flange. The self deploying anastomosis device does not rely on a temperature transformation to achieve deployment.